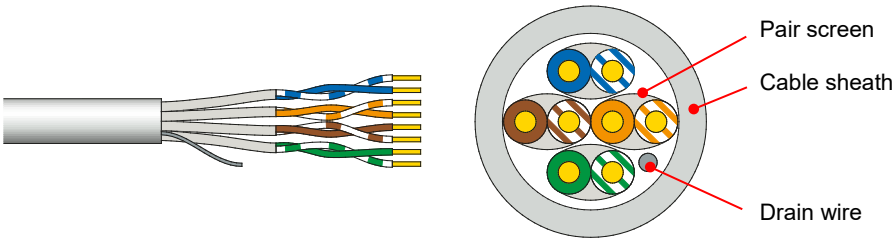


Cable reference	Part number	R308247
	Source code	J
	R&M positioning	Cat.6A, Level 1

Cable construction	Conductor	Bare solid copper wire AWG23 (≥ Ø 0.545 mm)
	Insulation	Polyethylene ≤ Ø 1.30 mm
	Twisting	2 wires to the pair
	Cable lay up	4 pairs to the core
	Pair screen	Alu / polyester tape
	Overall screen	Non, tinned plated copper wire
	Sheath	LSFRZH, gray RAL 7035



Application	Primary (Campus), Secondary (Riser), Tertiary (Horizontal)
	IEEE 802.3an: 10Base-T; 100Base-TX; 1000Base-T; 10GBase-T
	IEEE 802.5 16 MB; ISDN; TPDDI; ATM
	IEEE 802.3af / IEEE 802.3at / IEEE 802.3bt
	Confirming to European regulation “CPR” EN 50575
Standards	ISO/IEC 11801 2nded.; EN 50173-1; ANSI/TIA-568.2
	IEC 61156-5 2nded.; EN 50288-10 ; Power over Ethernet (PoE) / Type 1-4
Fire rating	LSZH
	IEC 60332-1; IEC60332-3-22(3A); IEC 60754-2; IEC 61034-1 EN50575; Dca; DOP E6578

Technical Data	Cable designation	U/FTP Cat.6A 650MHz 4PxAWG23 (Shielded)
	Packaging	Drum 500 m
	Outer diameter	Nominal 7.5 mm
Mechanical Properties	Weight	51 kg / km
	Segregation class	C
	Tensile force	110 N
	Bending radius	≥ 40 mm during operation (without load)
		≥ 65 mm during installation (with load)
	Temperature range	During operation -20°C...+ 75°C
		During installation -20°C...+ 75°C

Electrical Properties
(at 20°C ± 5°C)

DC loopresistance		≤ 18.0 Ω / 100 m
Resistance unbalance		≤ 2 %
Test voltage	DC, 1 min, core/core	1000 V
Insulation resistance	500 V	≥ 5000 MΩ * km
Capacitance		43 pF / m max.
Capacitance unbalance		≤ 1500 pF / km
Mean characteristic impedance		100 ± 25 Ω
Nominal velocity of propagation		Approx. 75 %
Propagation delay	At 1 MHz	≤ 420 ns / 100 m
Delay skew		≤ 20 ns / 100 m
Coupling attenuation		≥ 55 dB

Typical transmission characteristics (at 20°C)

f (MHz)	Attenuation (B/100m)		NEXT (dB)		PS-NEXT (dB)		ACR-F ¹⁾ (dB/100m)		PS-ACR-F ¹⁾ (dB/100m)		Return loss (dB)	
	Max	Typ	Min	Typ	Min	Typ	Min	Typ	Min	Typ	Min	Typ
4	3.8	3.7	66.3	92	63.3	89	56	74	53	68	23	30
10	5.9	5.7	60.3	89	57.3	86	48	72	45	67	25	27
20	8.4	8.2	55.8	79	52.8	76	42	68	39	63	25	27
62.5	15	14.6	48.4	77	45.4	74	32.1	56	29.1	51	21.5	25
100	19.1	18.6	45.3	74	42.3	71	28	52	25	47	20.1	23
250	31.1	30.4	39.3	68	36.3	65	20	44	17	39	17.3	21
500	45.3	44.4	34.8	65	31.8	62	14	32	11	30	17.3	20
600	–	48.5	–	63	–	60	–	25	–	22	–	19
650	–	51.4	–	58	–	55	–	18	–	15	–	18

¹⁾ ACR-F was formerly known as ELFEXT.**Recommended connection technique**

Module		Perm. Link Class D	Perm. Link Class E	Channel Class E _A	Perm. Link Class E _A	Short Link Class E _A
	Cat.5e/s	✓	–	–	–	–
	Cat.6/s	✓	✓	✓	–	–
	Cat.6AEL/s	✓	✓	✓	✓	✓
	Cat.6A/s	✓	✓	✓ Best in Class	✓ Best in Class	✓ Best in Class